

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 16	
2. AMENDMENT/MODIFICATION NO. 000003		3. EFFECTIVE DATE 02/09/2011		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Alan C. Jackson/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Alan C. Jackson/BH2 2101 NASA Parkway Houston TX 77058-3696	
CODE		JSC		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(x) 9A. AMENDMENT OF SOLICITATION NO. NNJ11358272E		9B. DATED (SEE ITEM 11) 12/03/2010	
		10A. MODIFICATION OF CONTRACT/ORDER NO.		10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☒ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

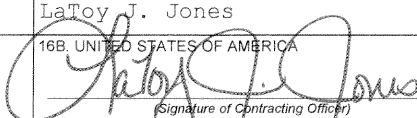
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

See Page 2.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) LaToy J. Jones	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 2-9-11

The purpose of Amendment 03 is to:

1. Delete Specification Section 01 11 00, Part 1 General, Page 3, Paragraph 1.10, Staking Out The Work and replace in its entirety with the following:

1.10 STAKING OUT THE WORK

The Contractor shall set horizontal/vertical control points in the field along the designed pipeline alignments. These points are to be shown on the as-built Drawings. The contractor is responsible for installing all pipelines to the lines and grades indicated on stakes.

The Contractor will be held responsible for the preservation of all control points and benchmarks in their positions. In case any of them are lost or destroyed and require replacement, the contractor shall do so at his/her own expense.

2. Delete Specification Section 03 40 00.00 10, Part 1 General, Page 8, Paragraph 1.5.2.3, Inspection and replace in its entirety with the following:

1.5.2.3 Inspection

The Contracting Officer may place an inspector in the plant when the units covered by this specification are being manufactured. The precast concrete producer shall give notice 14 days prior to the time the units will be available for plant inspection. Neither the exercise nor waiver of inspection at the plant will affect the Government's right to enforce contractual provisions after units are transported or erected.

3. Delete Specification Section 32 12 16, Part 1 General, Page 1, Paragraph 1.1, Unit Prices and replace in its entirety with the following:

1.1 [Reserved]

4. Delete Specification Section 32 12 16, Part 1 General, Page 1, Paragraph 1.1.1, Method of Measurement and replace in its entirety with the following:

1.1 .1 [Reserved]

5. Delete Specification Section 32 12 16, PART 1 GENERAL, Page 1, Paragraph 1.1.2 Basis of Payment and replace in its entirety with the following:

1.1.2 Basis of Payment

Hot-mix asphalt mixtures for utility trench pavement replacement shall be priced as part of CLIN 22 and included in the Total Base Bid. Price shall include furnishing all materials, equipment, plant, and tools; and for all labor and other incidentals necessary to complete work required by this section of the specification.

6. Delete Specification Section 32 12 16, Part 1 General, Page 2, Paragraph 1.1.10, Payment Adjustment for Smoothness and replace in its entirety with the following:

1.1.10 [Reserved]

7. Delete Specification Section 32 12 16, Part 3 Execution, Page 16, Paragraph 3.11, Material Acceptance and replace in its entirety with the following:

3.11 Material Acceptance

8. Delete Specification Section 33 11 00, Part 1 General, Page 2, Paragraph 1.2, Unit Prices and replace in its entirety with the following:

1.2 [Reserved]

9. Delete Specification Section 33 11 00, Part 1 General, Page 2, Paragraph 1.2.1, Measurement and replace in its entirety with the following:

1.2.1 [Reserved]

10. Delete Specification Section 33 11 00, PART 1 General, Page 2, Paragraph 1.2 Unit Prices, subparagraph 1.2.2 Payment and replace in its entirety with the following:

1.2.2 [Reserved]

11. Delete Specification Section 33 32 13.13, PART 1 General, Page 6, Paragraph 1.7 General Requirements and replace in its entirety with the following:

1.7 GENERAL REQUIREMENTS

Submit Material, Equipment, and Fixtures List of all major components including manufacturer's catalog numbers, specification and drawing reference number, warranty information, and fabrication site.

Submit Listing of Product Installations similar to the package lift station the Contractor is installing.

Submit Safety Considerations including information relating to load limits, speed of operation, environmental criteria (temperature and pressure limitations), and personnel hazards and equipment safety precautions for the package lift station.

Submit Spare Parts Data, including a complete list of parts and supplies. Provide manufacturer's current price list and source of supply. List parts and supplies that are either normally furnished at no extra cost with the purchase of equipment, or specified to be furnished as a part of the contract, and list additional items recommended by the manufacturer to ensure an efficient operation for a period of one year.

12. Delete Keyed Note 1 on drawing number 45 and Keyed Note 5 on drawing number 60 and replace in its entirety with the following:

SCADA RTU ENCLOSURE SHALL BE 36"X36"X13" FIBERGLASS TO HOUSE UPS POWER SUPPLY, RADIO, TERMINATION BLOCKS, LED STATUS LIGHTS, CABLES AND DISPLAY UNIT. PLC SHALL BE 24V CONTROLWAVE MICRO TYPE WITH I/O LISTED ON THIS SHEET. PROVIDE PROGRAMMING AND PROGRAMMING AND MODIFICATIONS TO EXISTING CITY OF LAS CRUCES 900MHZ SCADA PLC'S, I/O AND CENTRAL CONTROL HMI'S TO INTERFACE AND MONITOR THE I/O POINTS LISTED BELOW INCLUDING THE POINTS FROM THE REMOTE LIFT STATION NET I/O PLC MODULES. THE LIFT STATION CONTROLS ARE SELF CONTAINED AT EACH SITE AS INDICATED ON THE DRAWINGS AND ARE NOT DEPENDENT ON THE SCADA SYSTEM FOR OPERATION, PROGRAMMING AND INTERFACING OF I/O SHALL BE FOR MONITORING PURPOSES ONLY. NOTWITHSTANDING ANY THIRD PARTY INSTRUCTIONS, A TOTAL OF 40 HOURS FOR PROGRAMMING, AND PROGRAMMING AND MODIFICATIONS TO FACILITATE THE SPECIFIED INTERFACE AND MONITORING REQUIREMENTS PER THE CONTRACT DOCUMENTS SHALL BE INCLUDED IN THE TOTAL FIRM FIXED PRICE OF THE CONTRACT. TOTAL PROGRAMMING EFFORT FOR ALL FOUR LIFT STATIONS WILL NOT EXCEED 40 HOURS. NO OTHER ESTIMATES SHALL BE CONTROLLING.

13. Delete Keyed Note 2 on drawing number 45 and Keyed Note 6 on drawing number 60 and replace in its entirety with the following:

SCADA RTU ENCLOSURE SHALL BE 36"X36"X13" FIBERGLASS TO HOUSE UPS POWER SUPPLY, RADIO, TERMINATION BLOCKS, LED STATUS LIGHTS,

CABLES AND DISPLAY UNIT. USE GEMDS RADIOS AND NET I/O PLC MODULES FOR I/O LISTED ON THIS DRAWING. PROVIDE PROGRAMMING TO INTERFACE AND MONITOR THE NET I/O LIFT STATION POINTS LISTED BELOW INTO THE CITY OF LAS CRUCES 900MHZ SCADA PLC'S, I/O AND CENTRAL CONTROL HMI'S. THE LIFT STATION CONTROLS ARE SELF CONTAINED AT EACH SITE AS INDICATED ON THE DRAWINGS AND ARE NOT DEPENDENT ON THE SCADA SYSTEM FOR OPERATION, PROGRAMMING AND INTERFACING OF I/O SHALL BE FOR MONITORING PURPOSES ONLY NOTWITHSTANDING ANY THIRD PARTY INSTRUCTIONS, A TOTAL OF 40 HOURS FOR PROGRAMMING, AND PROGRAMMING AND MODIFICATIONS TO FACILITATE THE SPECIFIED INTERFACE AND MONITORING REQUIREMENTS PER THE CONTRACT DOCUMENTS SHALL BE INCLUDED IN THE TOTAL FIRM FIXED PRICE OF THE CONTRACT. TOTAL PROGRAMMING EFFORT FOR ALL FOUR LIFT STATIONS WILL NOT EXCEED 40 HOURS. NO OTHER ESTIMATES SHALL BE CONTROLLING.

14. Provide official answers to questions submitted by Offerors in response to Invitation for Bid NNJ11358272E. See Attachment 1.

Official Answers to Questions Submitted by Offerors

Amendment 2, Attachment 1

**Official Answers to Questions Submitted for Upgrade to the Sanitary Sewer System at
White Sands Test Facility (WSTF)**

Invitation for Bid NNJ11358272E

Disclaimer: The questions that are listed in this document were reproduced exactly as they were submitted.

Question 1: Would you please advise if the Upgrade to the Sanitary Sewer System Project requires the pipelines to be relocated?

Response 1: No, this project does not require pipelines to be relocated.

Question 2:

Part 1: For this project, the NASA/WSTF Sanitary Sewer Upgrade. What will your determination be as far as "qualified" contractor?

Part 2: The value of the project is 5 to 10 million dollars, will the contractor have to have done a 5 to 10 million dollar sewer project before? Will he/she have to have done a 5 to 10 million dollar project before such as water, gas, sewer, concrete and paving that totals 5 to 10 million? A building project that that totals 5 to 10 million? 5 to 10 millions dollars total of combined projects over the last year? We feel we are qualified to complete this project but we would like to have more insight as to what the guidelines will be before we spend the next thirty days working on this proposal.

Response 2:

Part 1: IFB Section M.2, Determination of Responsibility, provides the criteria established in FAR 9.1, Responsible Prospective Contractors, which applies to a determination of responsibility necessary for award.

Part 2: Refer to IFB Section L.20, Responsibility Information, to determine what information shall be submitted with your bid and the type of information the Government will review for determination of responsibility.

Question 3: This RFI is in reference to paragraph 3 on page 2 of 3 in the introduction to Package 2: Our size standard is 5 million as a small business but the roofing company that I am bringing in with me to fulfill this contract is well over the 14 million in size. Am I okay to pursue this as a respected bidder?

Response 3: If you are proposing as the prime contractor, you have to meet the size standard for the requirement. Therefore as long as the prime contractor meets the size standard requirement they can bid on the work.

Question 4: What do we do with the raw sewage in the septic tanks and the septic tanks? Do we fill them w/flowable fill, do we pump them out or just abandon in place?

Response 4: Septic tank closure/abandonment is not a requirement of this project. WSTF will coordinate all taps and tie-ins.

Question 5: Is there any sewage lagoons to be abandoned, if so what do we do w/them? Do we fill them, pump them out?

Response 5: Lagoon closure/abandonment is not a requirement of this project. WSTF will coordinate all taps and tie-ins.

Question 6: Do we have to hire a professional Geo Tech for shoring and trenching? I understood by OSHA that if it is under 20' deep, we are allowed to check it ourselves and monitor the trenches. We are certified in trenching & shoring as competent person. REF-SEC 31.00.00 PG 10, Para 3.4.2 anything over 20' you need an Engineer.

Response 6: All work shall be performed as required by the specifications and drawings. Contractor is required to follow all local, state, and federal requirements as applicable. All cost shall be included in the prospective bidder's Total Base Bid. See Specification Section 31 00 00 (3.4.2).

Question 7: General Note # 28, Are there fee's associated with project to Las Cruces or anyone else? Note #1 – L-OS obtain a construction permit (CLC), standards available at: <http://www.lascruces.org/utilities/docs/clc-util-stand-0508.pdf>

Response 7: Contractor is required to follow all local, state, and federal requirements as applicable. All cost shall be included in the prospective bidder's Total Base Bid.

Question 8: Section 3100.00 PG 14, what is a sewage absorption trench or pit and are we expected to have any on this project? None were shown on the plans.

Response 8: No; a sewer absorption trench or pit is not a requirement of this project.

Question 9: Can we backfill the pipe before we test?

Response 9: Yes, allowances will be made for backfill prior to testing, based on site conditions (ie safety, weather, traffic, & terrain). See Specification Sections 01 32 01.00 10, 01 33 00, and 31 00 00.

Question 10: How much open trench are we allowed to have at one time?

Response 10: The allowance of open trench will vary based on several factors i.e. safety, test results and site conditions; see Specification Sections 01 32 01.00 10, 01 33 00, and 31 00 00.

Question 11: Can we leave any open trenches over night?

Response 11: Yes, however due to inclement weather or location constraints, some trench work may be required to be backfilled prior to the contractor leaving the job-site.

Question 12: What Government entity will check and accept Holman Rd lift station?

Response 12: NASA, Dona Ana County, and City of Las Cruces will have joint input/inspection oversight for this lift station. However, the NASA CO/COTR will have final acceptance.

Question 13: Who will provide maintenance on lift stations after completion of project?

Response 13: Maintenance of the lift stations is not a requirement for this project.

Question 14: Is CO or other Government inspector available daily for inspection like, compaction, leak test etc.

Response 14: Yes

Question 15: Geo report under BI shows Asphalt as Hazardous material?

Response 15: No, the Geo report under BI shows status as unknown; if asphalt is hazardous, then Contractor shall comply with Specification Section 01 57 19.00 20.

Question 16: Is any re-seeding at the excavated areas required and need to be maintained?

Response 16: See Specification Sections 01 57 19.00 20, 01 57 20 .00 10, and National Pollution Discharge Elimination System (NPDES) Part 10.

Question 17: Is there an existing system in place or is this completely new construction? If a system exists, would the buyer be open to an alternate bid, primarily trenchless replacement?

Response 17: The new construction will connect to the existing system. No, an alternate bid is not acceptable as per Invitation for Bid (IFB) Section L.5, Preparation of Bids – Construction (FAR 52.214-18) (Apr 1984). All work shall be done as required by the specifications and drawings.

Question 18: The Specification Sec. 33 71 02. -2.1.1 "Rigid Metallic Conduit, PVC Coated" Is this required for all exposed conduit on this project? I don't see it mentioned on the drawings.

Response 18: PVC Coated is only required when stated within the specifications or drawing.

Question 19: Sheet E-50 Detail 1 and 2, "3000 PSI Red Concrete encased duct bank". Is this required for all underground conduits or only the Service Distribution Feeder?

Response 19: 3000 PSI Red Concrete is required for 480V and above. See Specification Sections 03 30 00 and 33 71 02.00 20.

Question 20: Sheet E-50 Detail 7, "Flood Light Pole Height as per fixture schedule" There is no height on the fixture Schedule. What height should these poles be?

Response 20: The Flood Light Pole height shall be 25 feet.

Question 21: We are teaming with another company that is going to indemnify us through our bonding company which will help us add more capacity to our aggregate bonding limit.

Response 21: The prime is responsible for meeting the bonding requirements. Refer to the following sections of the IFB for the requirements of Performance and Payment Bonds and Bid Bonds:

IFB Section I.1

- FAR 52.228-2 (Additional Bond Security)
- FAR 52.228-15 (Performance and Payment Bonds – Construction)

IFB Section L.1
- FAR 52.228-1 (Bid Guarantee)

Question 22: Who will handle the permits onsite and offsite?

Response 22: In accordance with Specifications Section 01 14 00 and FAR 52.236-7 the Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. NASA will facilitate all on-site permits.

Question 23: Will NASA provide staging areas?

Response 23: Yes. Sites will be determined by the Government during the pre-construction phase of the project. See Specification Sections 01 50 00 and 01 57 20.

Question 24: How good are the as-built?

Response 24: The information provided is based on the best available WSTF facility drawings.

Question 25: Will NASA provide the flow rates?

Response 25: No, there is no design effort required on this construction project; flow rates are not germane to the project.

Question 26: How much water does WSTF go through a day and where is the water generated from?

Response 26: Usage is variable and WSTF has its own potable water system.

Question 27: Can the Contractors get water from the fire hydrants?

Response 27: Yes. The contractor also has the option of installing portable construction tank(s) with approved backflow prevention to fill water trucks.

Question 28: What's the purpose of the drill wells?

Response 28: Drill wells are not a requirement of this project.

Question 29: Can Contractors set up water pumps? “Construction Water”

Response 29: Yes, if the pumps are necessary to perform the work, however, it must be coordinated with the CO/COTR.

Question 30: Where does NASA property end next to Holman Road?

Response 30: The Holman Road lift station proper is set on Township 21, South (T21S), Range 3 East (R3E), Section 6 and is part of the Bureau of Land Management (BLM) property set aside for NASA’s use. Holman Road runs north-south along the western boundary of Section 6. The force main will be installed in Dona Ana County easements. Refer to drawings C18, C19, and C-65.

Question 31: Does NASA have construction permission from BLM?

Response 31: Yes.

Question 32: How should Contractor haul water offsite?

Response 32: If the contractor decides to haul water off-site, contractor shall be responsible for determining the method which will be incidental to the performance of the work. Water may be obtained from off-site utility providers at contractor’s own expense.

Question 33: Does the Contractor have to travel all the way around, once offsite construction begins to enter off and on the WSTF’s property?

Response 33: Yes.

Question 34: Does the Contractor have to meet every day with the Safety Representative?

- a. Offsite and Onsite?
- b. If the Contractor have multiple crews working onsite and offsite, should all work crews attend the daily meetings?

Response 34: No, however the contractor is required to conduct a daily pre-task safety meeting per OSHA

- a. Yes, see above answer.

- b. Yes, attendance shall be at each job-site location at the beginning of each work shift.

Question 35: Can the Contractor's employees drive their own personal vehicles onsite?

Response 35: Yes, with WSTF security approval.

Question 36: Does Gross Receipt Taxes apply to this project?

Response 36: The Gross Receipt Tax shall be included in the prospective bidder Total Base Bid.

Question 37: How can the Contractor's vendors (i.e. Concrete) get onsite?

Response 37: Vendors will need to be cleared as a visitor by the COTR. Contractor is required to provide a badged escort.

Question 38: Is there a bid schedule with quantities available?

Response 38: No. All work shall be included in the Total Base Bid. The following specification sections have been revised as part of this Amendment for clarification.

1. Specification Section 01 11 00, Part 1 General, Page 3, Paragraph 1.10, Staking Out The Work
2. Specification Section 03 40 00.00 10, Part 1 General, Page 8, Paragraph 1.5.2.3, Inspection
3. Specification Section 32 12 16, Part 1 General, Page 1, Paragraph 1.1, Unit Prices
4. Specification Section 32 12 16, Part 1 General, Page 1, Paragraph 1.1.1, Method of Measurement
5. Specification Section 32 12 16, Part 1 General, Page 1, Paragraph 1.1.2 Basis of Payment
6. Specification Section 32 12 16, Part 1 General, Page 2, Paragraph 1.1.10, Payment Adjustment
7. Specification Section 32 12 16, Part 3 Execution, Page 16, Paragraph 3.11, Material Acceptance
8. Specification Section 33 11 00, Part 1 General, Page 2, Paragraph 1.2, Unit Prices
9. Specification Section 33 11 00, Part 1 General, Page 2, Paragraph 1.2.1, Measurement

10. Specification Section 33 11 00, Part 1 General, Page 2, Paragraph 1.2 Unit Prices, subparagraph 1.2.2 Payment
11. Specification Section 33 32 13.13, Part 1 General, Page 6, Paragraph 1.7 General Requirements

Question 39: We is looking at bidding project in Texas will we be able review plans prior to Bid or is this a unit price contract?

Response 39: The resultant contract will be Firm Fixed Price, and will not contain any unit pricing. As per IFB Section L.18, the specifications and drawings are available in the Technical Library located on the following website, <http://procurement.jsc.nasa.gov/usss/>. To obtain access to the Technical Library, a username ID and password is required. Please submit the following information to the Contracting Officer/Contract Specialist at latoy.j.jones@nasa.gov or alan.c.jackson-1@nasa.gov to receive username ID and password by email.

1. Are you a foreign person as defined in 22 CFR 120.16?
2. Full Company Name:
3. Company Address:
4. Point of Contact:
5. Phone Number:
6. IP Address:
7. Foreign Company?
8. Cage Code:

Question 40: In researching the SCADA system phase of work for the Upgrade of the Sanitary Sewer System – NASA White Sands Test Facility solicitation NNJ11358272E we have discovered some areas of concern. It is our understanding that there is not enough information in the RFP in order for us to provide a comprehensive proposal for this specific phase of work (SCADA).

We have been researching a solution with the City of Las Cruces and DCD Company, Inc. (DCD Company, Inc. is the Emerson regional rep) please comments below for your reference.

At this time we would like to respectfully request your advisement on how to proceed with this matter. We will continue our focus on completing the subject proposal and would greatly appreciate your time and advisement.

The reports I am getting from Emerson Process Management via point of contact as indicated on the drawings sheet E-60 is that there is not enough information to bid the SCADA portion of the subject solicitation. At minimum the following

items are necessary in order to provide a comprehensive cost estimate for this phase of work:

- Programming scope of work
- Interfacing (w/ City of Las Cruces) scope of work
- Radio Survey Data/Report

Please advise on the status of this RFI and how you would like us to address this matter in our proposal. Thank you in advance for your time and attention to this request.

Response 40: The performance of a path analysis complete with a corresponding RF Area Coverage Report to ensure the proper operation of the SCADA system is the responsibility of the contractor as listed in the Technical Specifications Section 27 05 13.00 10. The following general information is provided below:

INFORMATION	Lift Station No. 1	Lift Station No. 2	Lift Station No. 3	Holman Lift Station
Frequency	915 MHz	915 MHz	915 MHz	915 MHz
Power (TX-RF) MEAN	1-watt	1-watt	1-watt	1-watt
Antenna Coordinates	32°32'42"N 106°36'49"W	32°31'23"N 106°36'17"W	32°30'58"N 106°36'00"W	32°30'42"N 106°40'57"W
Antenna Type	Yagi	Yagi	Yagi	Omni
Antenna Gain, dB (isotropic)	11.1 dB	11.1 dB	11.1 dB	11.1 dB
Site Elevation (Meters Mean Sea L.)	1470	1470	1492	1342
Antenna Height (Meters Above Gnd)	6.09	6.09	6.09	10.67
Orientation	240.29°	260.22°	266.39°	Omni directional
Polarization	Vertical	Vertical	Vertical	Vertical

In addition, the following drawings have been revised as part of this Amendment for clarification.

1. Drawing Number E-45, Keyed Notes 1 and 2.
2. Drawing Number E-60, Keyed Notes 5 and 6.